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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,251	06/23/2003	Jurgen Otto Besenhard	LEE-0001	1932
23413	7590	05/17/2006		
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002				
EXAMINER				
MICHENER, JENNIFER KOLB				
ART UNIT		PAPER NUMBER		
1762				

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/602,251

Applicant(s)

BESENHARD ET AL.

Examiner

Jennifer K. Michener

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed, after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 4,6,10-12,14,15 and 21-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7-9,13 and 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant has elected the species of "heat treatment to react types of particulate solids to form new phases", as recited in claim 13, without traverse. Therefore, the other species in that first requirement, claims 10-12 and 14-15 are withdrawn from further consideration. Applicant also elected the species of Example 1, in which the solvents are water, the soluble polymer is water soluble, the particulate solid is titanium dioxide, and the bulk material is  $\text{LiCoO}_2$ . Examiner notes that Applicant did not list the claims readable thereon. For the purposes of examination, Examiner notes that Example 1 reads on claims 1-3, 5, 7-9, 13 (10-12 and 14-15 already being withdrawn), 16-18, the elected species of claims 19-20. Claims 21-27 are directed to a non-elected coating with precursors and/or Li.

Claims 4, 6, 10-12, 14-15, and 21-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Example and/or species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 3/01/2006.

Claims 1-3, 5, 7-9, 13, and 16-20 are examined herein.

### *Information Disclosure Statement*

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other

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information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Examiner requests submission of a formal IDS (and copies of the non-US patents) of references cited in the specification or any other known pertinent literature for review.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-3, 5, 7-9, 13, and 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitations "the surface-modified material", "the bulk of material", "the particulate solid", etc. when these elements are first introduced. There is insufficient antecedent basis for these limitations in the claim.

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140

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F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1, 3, 5, 16 and 20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 and 6-7 of U.S. Patent No. 6,235,182; 1 and 5-8 of 5,705,219; 1 and 4 of 5,916,485. Although the conflicting claims are not identical, they are not patentably distinct from each other because sintering in '485 is inclusive of treatment with heat. While the other patents do not specifically teach treatment with heat, such a treatment is inherent (see also, rejection over AASPA, below.)

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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8. Claims 1, 3, and 5 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's admitted state of the prior art (AASPA).

Page 4 of the instant specification outlines the method of this invention, stating that the method is known for coating wiring boards. While Applicant states that the process may be use in other fields, these fields are not claimed in at least independent claim 1.

Claim 1 merely requires treating the bulk of a material. While the AASPA does not specifically outline a step of treating with heat, Examiner notes that subsequent treatment with heat is inherent to some degree as the coated substrate will inherently be "treated" with "a form of energy ...capable of being transmitted through solids and fluids through conduction, through fluids by convection, and through empty space by radiation".

THE AASPA teaches the use of gelatin and titanium dioxide as the two coatings.

9. Claims 1-3, 5, 7-9, 13, 16-17, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Besenhard et al. '485.

Besenhard et al. teach treating a bulk powder with an aqueous solution containing a soluble polymer, such as gelatin, which acts as a flocculant, followed by contacting with a dispersion of a particulate, followed by sintering, which qualifies at treatment with heat (abstract; throughout).

Besenhard would produce core-shell materials with distinct phases. Sintering would create a new phase.

Besenhard teaches the use of aqueous solvents.

Besenhard's polymer may be gelatin, a water-soluble protein.

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Besenhard teaches the use of "mixed" coatings which contain different particles and the creation of "thick" coatings made by repeating the coating steps

Besenhard teaches the use of titanium dioxide as the particulate.


Besenhard teaches the use of his invention to product electrode materials for batteries

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer K. Michener whose telephone number is (571) 272-1424. The examiner can normally be reached on Monday through Wednesday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jennifer K. Michener  
Primary Examiner  
Art Unit 1762